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U S NAVY RESPONSE TO U S EPA COMMENTS ON DRAFT INTERIM REMEDIAL ACTION
COMPLETION REPORT SITE 10 ALLEGANY BALLISTICS LABORATORY ROCKET CENTER

WV
10/31/2012
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October 31, 2012

Ms. Sarah Kloss
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NPL/BRAC Federal Facilities Branch
United States Environmental Protection Agency, Region 3
1650 Arch Street
Philadelphia, Pennsylvania 19103-2029

Subject: Response to USEPA comments dated July 9, 2012 on the *Draft Interim Remedial Action Completion Report, Site 10, Allegany Ballistics Laboratory, Rocket Center, West Virginia, February 2012*

Dear Ms. Kloss:

On behalf of the U.S. Department of the Navy's Naval Facilities Engineering Command (NAVFAC), this letter is in response to USEPA comments received on July 9, 2012 regarding the subject document. Comments are presented in italics, followed by Navy responses.

EPA Specific Comments:

1. **Comment:** *Section 2.0, Remedial Action Objectives, Page 2-1: This section should list the MCL cleanup goals.*

Response: The MCL cleanup goals will be listed in Table 2-1. The following sentence will be added to Section 2.0: "The list of MCL cleanup goals for the chemicals of potential concern in the Site 10 alluvial and bedrock aquifers is presented in Table 2-1".

2. **Comment:** *Section 3.1, Selected Remedy, Page 3-1: The second paragraph states that LUCs have not been "formerly implemented at this time", but they are "in place". Explain the current mechanisms in place to ensure that these controls are working to prevent or minimize exposures.*

Response: The second sentence of the 3rd paragraph of Section 3.1 will be revised to: "Land-use controls (LUCs), although not formally implemented at this time, are in place in order to prevent or minimize exposure of potential future on-site residents and construction workers to contaminated groundwater". Formal implementation for LUC RD will be completed by December 2012.

In addition, the following sentence will be added: "LUCs in place at this time include limited access via a secure facility, and Site 10 boundary identification in the Navy Geographic Information Systems database". Visual site inspections are conducted quarterly, which include inspection of existing site fencing and other security measures, condition of wells, and monitoring current site activities for evidence that may indicate groundwater use.

3. **Comment:** *Section 3.2, Groundwater Extraction and Treatment, Pages 3-1 to 3-2: This section states that the*

combined pumping rate for Sites 1 and 10 is 121 gallons per minute. Add a breakdown of how many gallons is extracted from each site.

Response: In Section 3.2, the second sentence of the last paragraph will be revised to state: “The treatment plant began continuous operation in September 1998 and has treated an average of 121 gallons per minute (gpm) of groundwater since that time, with approximately 80% of groundwater pumped to the treatment plant coming from Site 1 and approximately 20% from Site 10”.

4. **Comment:** *Section 3.2, Groundwater Extraction and Treatment, Page 3-2: Specify the percentage of water treated at Plant #1 that is utilized by the ABL boiler plant versus the percentage that is being discharged to the North Branch of the Potomac River.*

Response: In Section 3.2, the last sentence of the last paragraph will be replaced with the following text: “The treated groundwater is either utilized by the ABL boiler plant or discharged to the North Branch Potomac River. The portion of water utilized by the boiler plant varies with seasonal change and operations at ABL, and excess water being discharged to the North Branch Potomac River”.

5. **Comment:** *Section 3.3, Long-Term Monitoring, Page 3-2: The final paragraph on Page 3-2 states that Well 10EW36 was not sampled during the January reporting period because the well motor was out of service. The text should provide more follow-up information. How long was the extraction well inactive due to this out of service motor? What measures were taken to restore the motor and resume extraction?*

Response: An additional sentence will be added to the last paragraph on page 3-2 to provide the available information: “According to archived system files, 10EW36 ceased operation on November 14, 2010, and resumed operation beginning on January 19, 2011 after a replacement pump could be obtained”.

6. **Comment:** *Section 3.3, Long-Term Monitoring, Pages 3-3 and 3-4: Explain why there was no baseline sample for 10EW40. Also, provide an explanation for the sampling gap for 10EW40 during the 2006 event.*

Response: 10EW40 is a Site 10 bedrock extraction well, which was brought online in February 2003 and sampled during the next 9-month sampling event in July 2003. Therefore, the July 2003 event was the baseline sampling event for 10EW40. However, there may be confusion as the February 2003 line is misplaced on Figures 3-3 and 3-4. The February 2003 line denoting the expansion of the Site 10 extraction system will be placed correctly.

Field logs from August 2006 indicate that 10EW40 was not operational during that sampling event, and could not be sampled. No further information is available on how long the well was out of service or when it was repaired. On page 3-3, the following sentence will be added prior to the last sentence of the last paragraph, “10EW40 was out of service due to pump malfunction during the August 2006 sampling event, and could not be sampled”.

Table 3-2 will be updated to include the sampling data from the Site 10 bedrock extraction wells.

Note - The Navy will implement better documentation for when wells are out of service.

7. **Comment:** *Section 4, Achievement of Remedial Action Objectives, Page 4-1: The second sentence states that the active phase of remedial action has been completed. Instead of “active phase,” “construction phase” would probably be more appropriate. The extraction system is still considered “active” remedial action.*

Response: The second sentence of the first paragraph on page 4-1 will be revised to: “To date, the construction phase of the remedial action has been completed”.

8. **Comment:** *Section 4, Achievement of Remedial Action Objectives, Page 4-1: This section should discuss hydraulic containment.*

Response: The following discussion will be provided in Section 4, after the sentence “In the bedrock aquifer, the TCE plume increased....” According to the monthly water level maps from March and April 2012 (Appendix A), capture was achieved in the Site 10 alluvial aquifer; however, capture was not achieved for the Site 10 bedrock aquifer. The operations and maintenance team conducted analyses of the lack of capture in the Site 10 bedrock aquifer and recommended that the bedrock extraction wells and lateral header pipes leading to the treatment plant be cleaned. The extraction wells were cleaned in May/June 2012 and the lateral header pipe for 10EW41 and 10EW42 is scheduled to be cleaned in the 3rd quarter of 2012. The May 2012 monthly water levels were recorded while the bedrock extraction wells were cleaned; as a result, the May monthly water level maps (Appendix A) show capture was maintained in the Site 10 alluvial aquifer, but there was no capture in the Site 10 bedrock aquifer as the pumps were shut off during well cleaning. It is the Partnering team’s assessment that capture should be improved in the Site 10 bedrock aquifer once cleaning is complete.

The table number in Section 4 will be changed from 5-1 to 4-1.

9. Comment: *Section 5.1, Five Year Reviews, Page 5-1: The document should contain a “Conclusions” section. The second paragraph should be moved to the “Conclusions” section. Also, the discussions related to protectiveness should be omitted since protectiveness is a five year review determination, not an IRACR type determination. The conclusion section should summarize why the IRACR is ready for signature. For example, construction is complete for the extraction system.*

Response: A Conclusions section will be added as Section 6, and the references will be Section 7. The second paragraph of Section 5.1 will be moved to the new Conclusions section. The sentences starting with “There have been no changes in the physical conditions....” to the end of the paragraph will be removed. The conclusion will be written as follows:

The current Site 10 extraction well network configuration was completed and brought online in 2003. The remedy for Site 10 OU-5 is functioning as intended by the ROD with the prevention of continued movement of the most contaminated groundwater at Site 10. Routine maintenance, including inspection, repair, and replacement of the mechanical equipment at the extraction wells, and non-routine maintenance, including extraction well and header pipe rehabilitation, is conducted regularly to ensure continued operation of the treatment system. Additional analytical and hydraulic data through long-term monitoring is required to perform a more comprehensive analysis of the RA’s effectiveness in meeting the MCL cleanup goal for VOCs.
EPA Minor Comments:

1. Comment: *Section 1.2, Page 1-1: In the fourth paragraph 1,1-dichlorethene is misspelled.*

Response: 1-1-dichlorethene will be spelled correctly.

2. Comment: *Section 3.1, Page 3-1: The second sentence of paragraph two has an extra “b”.*

Response: The extra letter will be deleted.